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An aerial photograph of a rural landscape, likely in the Midwest, showing a river or stream winding through the scene. The land is divided into fields and pastures. There are several small buildings, possibly farmhouses or barns, scattered throughout. The terrain appears to be hilly, and there are some areas of bare soil or erosion visible, particularly along the riverbanks and on the slopes. The overall tone is sepia or aged black and white.

## **Soil Conservation Districts for Erosion Control**

U. S. DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE  
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## FOREWORD

*SOCIETY AND THE FARMER have a mutual interest in the land. They share the responsibility of preserving its productivity. To meet this responsibility they must act as partners. In the past, however, society and the farmer have been unable to enter fully and freely into such a partnership. The mechanism for doing so has been lacking. Now, however, a number of States have passed soil conservation districts laws which enable the farmer and society to cooperate to control accelerated soil erosion. This legislation has an immediate bearing upon the soil conservation program of the Department of Agriculture. Early in 1936 the Department reached the conclusion that while soil conservation demonstrations could point the way, the States must provide adequate legal means of spreading tested soil conservation practices to all land suffering from erosion, if the problem is to be solved. The purpose of this publication is to discuss how the Department of Agriculture, as an arm of society, may cooperate with farmers through the mechanism provided by this State legislation.*

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## *Soil Conservation Districts for Erosion Control*

### **The Farmer's Partnership With Society**

IN RECENT YEARS, as a Nation, our attitude toward the land has changed. During the years when our farm lands were being settled the conviction grew that a man's handling of his land could affect only his own well-being. Whether he farmed well or whether he farmed poorly, society, it was felt, held no stake in the matter. The roots of the conviction sank deep while there was free land. But since the supply of free land has become exhausted our concept of the relationship of the farmer and rancher to society in general has undergone a change. It has become a matter of public concern. We have taken inventory of our land resources and find that 50 million acres of land have been ruined by erosion and that 100 million acres are approaching ruin as a consequence of improper land use.

Our new concept assumes that society has an interest in the privately owned farm, forest, and grazing lands of the country which is at least equal to the interest of the owner himself. It recognizes in the soil a basic national resource which is not only destructible but irreplaceable.

If this assumption is sound, obviously it imposes new duties on both the landowner and society. It becomes the duty of society to assist the landowner to make the best use of his lands, and it becomes the duty of the landowner so to use his lands as to conserve the soil and its fertility in the interest of society. Only through full cooperation between landowner and society, each recognizing the responsibility and bearing a share of it, can we expect posterity to inherit fertile fields and forests rather than eroded slopes and barren plains.

## The Soil Conservation Districts Laws

This new appreciation of the partnership that exists between farmer or rancher and society has found expression in the passage of State soil conservation districts laws. Since January 1, 1937, the legislatures of 22 States have passed laws providing for the creation of soil conservation districts. Bills providing for similar laws are being considered for introduction in the legislatures of other States.

The Department is vitally interested in the passage of such legislation by the States. In its long experience with conservation programs, whether they dealt with the soil, the forests, the range, or wildlife, the Department has found that the problems of conservation invariably are closely bound up with the right use of land.

Farmers and ranchers, of whom there are more than 6 million, control the use of most of the arable land in the United States. The Department, cooperating with the States, welcomes an opportunity to work with farmers and ranchers through the cooperating groups which the soil conservation districts laws permit farmers and ranchers to organize.

### Why Cooperative Action is Necessary

The nature of soil erosion, the consequences which follow unrestrained soil washing and blowing, and the character of conservation measures are such that a cooperative attack on the problem appears to be the only feasible way of reaching a solution. Let us look at all three of these factors in turn.

Soil erosion is a natural process. It began with the first rain, the first wind. Under natural conditions, however, it rarely proceeds at a pace faster than that at which soil is formed by the deliberate processes which nature employs to build soil. Before we began to cultivate crops and graze great herds there was no record of serious acceleration in the rate of soil erosion anywhere on the North American Continent. Everywhere that plants would grow the soil lay protected by a





FIGURE 1.—Erosion strikes at the heart of a community, cutting its basis of support from under it. This was once the home of a prosperous farm family. Surrounded now by abandoned, eroded fields, it is occupied, rent free, by former servants of the family.



covering of vegetation. The forces which built soil and the forces which transported it embraced in natural balance. This balance was upset by agriculture and herding. Everyone knows the story. Forests were cut down to make way for farms, the prairie sod was turned, exposing the bare soil directly to the winds and the rains; and the topsoil consequently began to blow and wash at an alarming rate.

The effects of this acceleration in the speed of erosion are far-reaching. They are not confined to the land that is misused and abused but reach out to injure other lands and the works of men far removed. Along the trail of advanced erosion one sees impoverished land and impoverished families and communities, for erosion strikes at the very heart of a family and community, cutting their bases of support from under them (fig. 1). One sees damaged roads, highways, and railroads. One sees the products of erosion clogging stream channels, reservoirs (fig. 2), ditches, and harbors, causing losses in navigation, hydroelectric power, and municipal water supplies.

FIGURE 2.—The products of erosion clog stream channels, reservoirs, ditches, and harbors. Behind this dam, where the water once stood 20 feet deep, is a tree-clad island.







FIGURE 3.—The effects of accelerated soil erosion are far-reaching. They are not confined to the land that is misused, for wind and water erosion reach out to injure other lands. Without the cooperation of neighbors, one can, alone, do little to prevent a dust storm.

One sees unrestrained erosion destroying the food and cover for wildlife, contributing to greater floods, and reducing the value of engineering works and farms downstream.

Wind and rain are natural forces. They follow no pattern laid down by man. They respect neither his fence lines nor his property lines. Soil carried by water moves from the crests of the ridges down to the bottom lands along the streams. Therefore, if the man on the hillside does nothing to hold his soil and water where they belong, there's nothing much the man down below can do but grin and bear it when his crops and his good soil are buried by sand and gravel and raw clay from eroded fields higher up. Nor is there much an individual

farmer can do to prevent a dust storm without the cooperation of his neighbors (fig. 3).

Single-handed combat with erosion is costly and can never be anything but piecemeal. There is only one style of attack that seems worth while, that seems to hold promise of success; and that is to begin the attack where the erosion begins, at the crests of the ridges, and work down, field by field, to the stream banks in the valley below. This style of attack would begin at the center of a dust area and move, section by section, towards its outskirts.

Really to be complete, a soil and water conservation program must bring into use all of the known good, practical means of saving soil and water adapted to an area; and it must bring them into use on all of the land, not upon only a segment of it. And this must be done, for practical reasons, in such a way that the farmer is able to maintain or increase his income after the conservation measures are applied to his land. The cooperative erosion-control program, as a form of attack on the problem, presupposes that each piece of land will be put to the use to which it is best adapted (fig. 4). Thus erodible slopes and plains would again be clothed with trees or grass, cultivated crops would be restricted to the less erodible slopes and nonerodible lands. Sloping fields would be protected by such safeguards as strip crops, terraces, and other measures. Soil-saving and soil-improving rotations would displace soil-depleting and erosion-permitting cropping systems. Such a program, at least in certain parts of the country, would transform agriculture, but a transformation is necessary if we are to check soil wastage effectively. Such a program can succeed only through cooperative effort, neighbor with neighbor, community with community, working when necessary with State and Federal agencies, such as the land-grant colleges and the United States Department of Agriculture; and then only when the program is formulated by the people who live on the land and its control is held tightly in their hands. The soil-conservation districts laws are the machinery which promises to aid this transformation in a manner acceptable in a democracy.





FIGURE 4.—A cooperative attack on the problem of erosion presupposes that each piece of land will be put to the use to which it is best adapted.

## Democracy in Land Use

The basic principle underlying the soil conservation districts laws is to place the responsibility for formulating and carrying out an erosion-control program squarely upon the shoulders of local people. Moreover, they require that the initiative for the program must come from local people and rise from local needs. No district can be formed unless the people want it, and then not unless they register this want first by petition and later by a favorable vote in a referendum. Once the district is formed, control of its affairs rests in the hands of local people.

The laws, as drawn up by the various States, recognize that unless there is local participation there can be no democratic



solution of the land-use problem. The laws are all carefully drawn to assure that opportunity is provided for the exercise of local initiative; at the same time they contain safeguards which assure that the things done in the soil-conservation program are done because a large majority of the local farm operators believe them sound and of benefit to their own and the community welfare. The purpose of the laws, broadly speaking, is to provide a mechanism to help farmers to cooperate in dealing with a problem that affects them all and must be met by community action.

What is the role of State and Federal agencies in such a program? As with other cooperative enterprises their role is that of cooperator. Supervisors of districts will need help in carrying out the kind of soil-conservation program that farmers want. They may ask and receive help from whatever agency is in position to assist them. This help may be financial, it may be in the nature of technical assistance, or in the form of seed and plant materials, equipment, etc. They will need the benefit of the discoveries of the State agricultural experiment stations and the educational services of the land-grant colleges. In turn, the experiment stations and agricultural extension services will find these soil-conservation districts a useful medium for carrying on their research and educational activities.

## Provisions of the Laws

The soil conservation districts laws passed by the various States <sup>1</sup> are enabling acts which permit farmers to organize and form soil conservation districts which will have the status of governmental subdivisions of the State. There is nothing in these laws which makes it mandatory for a State to divide into soil conservation districts. Whether a district is formed rests entirely with the farmers who work the land. The decision is

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<sup>1</sup> The following States had passed soil conservation districts laws by Sept. 1, 1937: Arkansas, Colorado, Florida, Georgia, Illinois, Indiana, Kansas, Maryland, Michigan, Minnesota, Nebraska, Nevada, New Jersey, New Mexico, North Carolina, North Dakota, Oklahoma, Pennsylvania, South Carolina, South Dakota, Utah, and Wisconsin.

theirs to make. If groups of farmers wish to take advantage of their State soil conservation district laws the initiative for forming districts must come from them.

The powers granted to a district are of two kinds. After a district is formed and granted a certificate or organization from the State, farmers then have authority (1) to engage in cooperative action to combat soil erosion and (2) to prevent local misuse of land by voting land-use regulations upon themselves.

According to the provisions of the laws the supervisors of a district are permitted, under their first set of powers, to adapt known erosion-control practices and measures to local needs and to discover new means of controlling the particular kinds of erosion that are impoverishing the land in the district. They are empowered to carry out soil-conservation operations on the land, such as contour cultivation, strip cropping, terracing, and contour furrowing, or ridging of pastures. They may enter into contracts with farmers and give them financial and other assistance; they may buy lands for retirement from cultivation and for other erosion-control purposes; make loans and gifts to farmers and ranchers of equipment, machinery, seeds, etc.; take over and operate erosion-control projects; and recommend land-use plans for soil conservation.

The second set of powers of the district supervisors permits the administrative officers of a district, should they feel such action desirable, to formulate ordinances prescribing land-use regulations for soil conservation. Such regulations cannot go into effect, however, until they have been submitted to the farmers of the district and approved by referendum.<sup>2</sup> Changes in regulations may be made only on the approval, again by referendum, of the farmers in the district.

Undoubtedly many districts will find it unnecessary to adopt land-use regulations. All farmers in the district may

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<sup>2</sup> The standard act recommended by the Department of Agriculture required approval by a majority vote before supervisors could adopt specified land-use regulations. This conforms to traditional democratic procedure. Requiring more than a majority vote, it is felt, places undue influence in the hands of a minority. However, some State laws require the approval of more than a majority of the voters before supervisors may adopt regulations.

cooperate, for example. Or erosion on the lands of those who do not enter into the program may not be causing trouble to others. In either instance there would be no need for regulations.

Land-use regulations are to be the ordinances of the district, similar to the ordinances which every city, town, or county may adopt. Everyone is familiar with county weed-eradication laws, with city-zoning ordinances, with town-building codes, and the like. In each of these cases, the local governmental unit regulates private activity in the interest of the welfare of the whole group. So with the land-use regulations. However, all land-use ordinances must be submitted to a referendum and publicly approved before they go into effect. This is a departure from the usual procedure for determining ordinances. Usually the responsibility rests solely upon the elected officials.

To illustrate their nature and scope, let us look at a few examples of the kinds of regulations a district is empowered to adopt. In dust country, for example, a regulation might be adopted which would require contour listing of all blowing land that is a hazard to other lands. A district in the northern Great Plains might adopt a regulation calling for strip farming of all fields exceeding a certain size as a measure to prevent severe, widespread blowing. Or, in humid parts of the country, a regulation might require the retirement of certain badly eroded hillsides to trees or grass to protect lower-lying fields from overwash or require the construction of diversion terraces between adjoining pieces of property when wash from one piece is damaging the other.

The administrative affairs of a district are directed by a board of three to five supervisors or directors. Most of the State laws require five, of which two are appointed by a State soil conservation committee and three are elected by the farmers of the district. Supervisors are local residents. They serve for a period of 3 years. Each district is an independent unit of government, a subdivision of the State, and is not subject to the control of the State soil conservation committee, or





FIGURE 5.—Supervisors of districts will need help in carrying out the kind of soil conservation program that farmers want. They may ask and receive help from whatever agency is in position to supply technical assistance, services, funds, equipment, or materials.

any other agency, once the boundaries of the district are determined and operations have begun.

The functions of the State soil conservation committee, which also is created by the laws, are to make the legal determinations necessary in connection with creating a district, to encourage the organization of districts and define their boundaries, to bring about an exchange of information and experiences among the districts in the State, and to coordinate the several district programs "so far as this may be done by advice and consultation." The State soil conservation committee usually consists of five members. No State has less than three. Members generally serve by virtue of their positions as heads of State agricultural agencies. Most frequently they are the director of the State agricultural extension service, the director of the State agricultural experiment station, and the administrative heads of other State agricultural agencies.

All supervisors and State committeemen serve without pay. They may be reimbursed, however, for expenses incurred in carrying out their duties. Supervisors are permitted to hire employees to assist them (fig. 5).

## Sources of Funds for Districts

Although the soil conservation districts are governmental subdivisions of the State, like counties and municipalities, they do not have the power to levy taxes or to issue bonds.<sup>3</sup> The soil-conservation work that the districts do will be financed in several ways. (1) The landowner and land operator who directly benefit from the application of erosion-control measures to their lands may bear a share of the expense, furnishing labor, materials, equipment, etc. (2) Society, as represented by the State and Federal Governments, may bear a share. Appropriations may be made available to the districts out of funds in the State treasury and allocated by the State soil conservation committee, and services, funds, and properties

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<sup>3</sup> Except in Colorado, where districts are authorized to levy special assessments against the lands.



may be contributed by the United States through the Department of Agriculture or other agencies.

## How a District Operates

You are a farmer. Let us assume that a soil conservation districts law has been adopted in your State. You and your neighbors desire to organize for the purpose of pursuing a cooperative erosion-control program. How do you proceed?

First of all, you petition the State soil conservation committee, asking it to organize a district and to include your land within its boundaries. This petition must bear the signatures of a certain number of land occupiers <sup>4</sup> or landowners, depend-

<sup>4</sup> By definition in most of the State laws, a "land occupier" includes both the owner and the operator, whether a person, firm, or corporation. Some of the State laws limit the privileges of petitioning and voting in referenda to landowners; others specify that all land occupiers may petition and vote.

**FIGURE 6.**—After a petition signed by 25 farmers is presented, asking that a district be organized, the State soil conservation committee holds a public hearing. Farmers talk things over among themselves and decide whether they want such a district organized.





ing on your State law. After your petition is presented, the State committee holds a public hearing on the question. You talk over things with your neighbors and discuss the proposition at length at the hearing (fig. 6). The meeting adjourns.

The State committee, guided by the testimony given at the hearing, then decides whether a district is needed. The committee defines the boundaries of the district and gives notice of a referendum to be held to determine public sentiment. Since erosion problems have natural boundaries, the district would generally include all of a territory which should, for physical and economic reasons, be handled as a unit. The district may be a watershed. It very often should be. (The picture on the cover page illustrates part of such a watershed.) It may be a type-of-farming district. Or it may be an extent-of-erosion area. It may include all or parts of several counties, or if the problem is localized, the district may be smaller than a single county. But in any case the boundaries are determined by the State committee.

All land occupiers or landowners may vote in the referendum, according to the procedure and conditions laid down in your State law. If a majority vote against creation of a district, that ends the matter.

But let us assume that in your proposed district a large majority voted in favor. Then the State committee appoints two supervisors. The appointed supervisors file an application for a certificate of organization with the Secretary of State. When the certificate is issued, the district comes into being. An election is then held to elect three more supervisors.

The board of five supervisors then studies the problems of the district and formulates a program of erosion-control projects and decides on preventive measures. The committee may call upon the personnel of State and Federal agencies for help with this work.

The supervisors then proceed to carry the program into effect, securing such technical assistance and buying such equipment as their funds permit and your program requires.

To carry our hypothetical case further, let us assume that the soil conservation program in your district has been under



FIGURE 7.—In some instances land-use regulations may be necessary. Should soil wash from farms whose owners refuse to cooperate injure the bottom lands of others, for example, the supervisors may decide to propose land-use regulations. These are submitted to a referendum and must be approved by a majority of the farmers before they can be adopted.

way some time. An overwhelming majority of the people have gone along with the program, expressing confidence in the soil conservation measures recommended. But there is a small minority which has not taken part in the program. It happens that soil wash or dust from the farms of this minority is damaging the land and the crops of other people. For example, a farm may lie on a hillside, and water, subsoil, and sand may be washing down to the bottoms, damaging other people's best land (fig. 7). Or your district is in a dust area, and soil blown from one man's field is ruining the crops on another man's field. Their neighbors and your supervisors

have tried to induce the minority to cooperate and put soil conservation measures into effect, but they have failed to do so.

What, then, can be done? Under their first set of powers, which specifies that erosion-control work can be done on private lands only with the consent of the land occupier or landowner, your supervisors are helpless. So they turn to their second set of powers, which permits them, as elected representatives of the people of the district, to draw up soil conservation ordinances and submit them to a vote of the people. You vote "yes" or "no." If the vote is against regulations, that of course ends the matter. But let us say that the vote is close, with a small majority in favor of regulations. If your State law requires only a majority vote, the supervisors may or may not invoke the proposed regulations. They probably will not. But let us say that a large majority favored the regulations. Then, doubtless, your supervisors will declare them in force. Should the "hold-outs" still refuse to employ the conservation measures called for by the regulations, your supervisors may petition the local court to order the land occupier to observe the soil-conservation ordinances. The court order, if issued, may provide that if a land occupier fails to employ the conservation measures the regulations require, then your supervisors may go on his lands, do the necessary work, and collect the costs from the land occupier; or, as in a few States, the court could fine him for committing a misdemeanor.

It may be readily seen, however, that there is chance here for grave injustice. The farmer who refuses to carry out the provisions of the regulations may be right in his stand, and your supervisors wrong in determining whether a particular regulation is reasonable as applied to a certain piece of land. What then? The laws provide for this eventuality by requiring that a board of adjustment be established in districts which adopt land-use regulations. This board is authorized to permit exceptions and variances from land-use regulations in cases where the application of the strict letter of the law would



result in "great practical difficulties or unnecessary hardship." The decisions of the board of adjustment are, of course, subject to review in the local courts.

It is possible that there will be districts in which the procedures just outlined will prove impractical. The laws therefore provide that after a district has existed for a certain number of years (5 years in most of the State laws), farmers may petition to have the district dissolved. The question of dissolution is then submitted to a referendum. If a sufficient number of the people affected vote to dissolve the district, its affairs are brought to an end.

## Is a District Needed in Your Neighborhood?

Is it becoming harder and harder in your neighborhood to grow good crops? Are yields declining? Has much of the topsoil blown or washed from your fields—from the fields of your neighbors? Is good land in your neighborhood threatened by wasteful systems of farming? Do water and silt from bare slopes cover your bottom lands, damage your crops, injure your land, choke streams and reservoirs? Do you know of many fields that have been retired from cultivation owing to gullying or loss of topsoil? Are dust storms a problem in your neighborhood?

If the answer to several of these questions is "yes", perhaps you and your neighbors should consider establishing a soil conservation district. If the democratic procedures provided by the soil conservation districts laws appeal to you and to your neighbors and you feel that you want a district, consult your county agricultural agent. He can put you in touch with the State soil conservation committee (provided, of course, that your State has a soil conservation districts law) and help you through the initial stages of organization. Your State committee can advise you as to the kind and amount of help you may expect from various governmental agencies in planning and carrying out your program.







